

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 08/05/2011 have been fully considered but they are not persuasive.
2. The applicant argued features in the claims, i.e. a method of controlling communications service in a telecommunications system comprising first and second subsystems the first subsystem being adapted to support first and second communications services and the second subsystem being adapted to support the second communications service, the method comprising the following steps in the case of a first mobile terminal having a call in progress with a second terminal under the first communications service via the first subsystem: detecting a call transfer condition for transferring the call to the second subsystem; if the second subsystem is not adapted to process the call under the first communications service, changing service from the first communication service to the second communication service; and after the change of service is complete, transferring the call to the second subsystem reads upon Farzannejad in view of Choi as follows.

Farzannejad is discussing where a video telephone session is started via a first link in the first network and perform handover to second link only using voice.

Therefore, Farzannejad is showing the limitation of **“a method of controlling communications service in a telecommunications system comprising first and second subsystems the first subsystem being adapted to support first and second communications services and the second subsystem being adapted to**

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**support the second communications service".** Farzannejad is discussing where a first session in form of video telephone session is set up on a first link between the two mobile phones via first network and where there is an indication of detected bad coverage of first network, that the user is notified of imminent handover and the handover to second network is requested by the phone control unit. Therefore, Farzannejad is showing the limitation of **"first mobile terminal having a call in progress with the second terminal under the first communications service via the first subsystem and detecting a call transfer condition for transferring the call to the second subsystem"**. Farzannejad is discussing where an imminent handover request to the second network is made because the second network is unable to process video and where handover is performed to the second network only using voice. Therefore, Farzannejad is showing the limitation of **"if the second subsystem is not able to process the call under the first communications service, changing service from the first communication service to the second communication service and after the change of service is complete, transferring the call to the second subsystem"**.

Farzannejad showed if the second subsystem is not able to process the call under the first communications service data but is silent if the second subsystem is not adapted to process the call under the first communications service. As a result Choi was used to show where a request for change is made because the first network (CDMA) is not adapted to process the session under the second network (WCDMA).

Farzannejad showed wherein communication for the session is handed over to a second link using a lower level of information content in the session such that a video

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telephone session in a third-generation cellular network can be continued with only voice in a second-generation cellular network therefore transferring a call to the second subsystem after a change of service is completed.

Regarding the applicants arguments on combination of references, all references were analogous and performing similar tasks and therefore are combinable.

Regarding the applicants argument on motivation, the motivation to combine was shown in the background of the secondary reference.

Therefore the argued features where read upon the cited references or are written broad enough that they read upon the cited references as follows.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim1-5, 8-9, 11-19, and 21-23, and 25-30 rejected under 35 U.S.C. 103(a) as being unpatentable over Farzannejad EP 1439725 in view of Choi et al. US 7096020.

Regarding claim 1, Farzannejad discloses a method of controlling communications service in a telecommunications system comprising first and second subsystems the first subsystem being adapted to support first and

second communications services and the second subsystem being adapted to support the second communications service content from a first link over a first network to a second link (**see abstract - transferring a session ongoing between two devices having a high level of information and where a video telephone session is started via a first link in the first network and perform handover to second link only using voice (see fig. 5 and 6)**). Farzannejad discloses the method comprising the following steps in the case of a first mobile terminal having a call in progress with a second terminal under the first communications service via the first subsystem (**paragraph [0049] where a first session in form of video telephone session is set up on a first link between the two mobile phones via first network therefore a call in progress under the first communications service via the first subsystem**). Farzannejad discloses detecting a call transfer condition for transferring the call to the second subsystem (**See Fig. 5, step 52-54 where there is an indication of detected bad coverage of first network**). Farzannejad discloses if the second subsystem is not able to process the call under the first communications service, changing service from the first communication service to the second communication service (**See Fig. 5, step 52-56 where an imminent handover request to the second network is made because the second network is unable to process video**) and after the change of service is complete, transferring the call to the second subsystem (**See Fig. 5, step 58 where handover is performed to the second network only using voice**). Farzannejad is silent on if the second

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subsystem is not adapted to process the call under the first communications service.

However, Choi teaches if the second subsystem is not adapted to process the call under the first communications service (**where a request for change is made because the first network (CDMA) is not adapted to process the session under the second network (WCDMA)**).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the invention of Farzannejad with that of Choi. The motivation would be in order to implement handoff between heterogeneous networks so that session is continued without interruption (**col. 1, lines 19-33**).

Regarding claim 2, Farzannejad discloses wherein a radio network controller of the first subsystem is connected to a core network switch and a radio network controller of the second subsystem is connected to a second core network switch (**see Fig. 1 and paragraph [0045] where RNC is connected to switch**), wherein, after the first switch has been informed of said detection of a call transfer condition, a request to transfer the call from the first switch to the second switch is transmitted (**see Fig. 5, step 54 and 56 where handover is requested to the second network**). Choi teaches wherein the inability of the second subsystem to process the call under the first communications service is indicated to the first switch by a transfer failure message sent in response to said

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transmission of the call transfer request (**col. 2, lines 36-38 where handoff is impossible under current situations**).

Regarding claim 3, Choi teaches wherein the first subsystem is of the third generation and the second subsystem is of the second generation (**col. 1, lines 34-42 and Fig. 1, where the first subsystem is 3G and the second subsystem is 2G**).

Regarding claim 4, Farzannejad discloses wherein the first communications service necessitates a higher transmission bit rate than the second communications service (**abstract-where the information content is higher and transmission rate higher**).

Regarding claim 5, the combination of above discloses wherein each communications service is associated with coding over at least a segment of the call and the service change request includes a request to change the coding over said call segment (see above).

Regarding claim 8, Choi teaches wherein the second communications service is a voice telephone service (**col. 1, lines 54-57 wherein the second communications service is a 2G CDMA voice telephone service**).

Regarding claim 9, Choi teaches wherein Adaptive Multi rate (AMR) coding is associated with the second communications service (**col. 4, lines 20-22- where the WCDMA processing unit includes AMR**).

Regarding claim 11, Farzannejad discloses wherein, if the second communications service necessitates a bit rate over a radio segment that is strictly lower than a maximum bit rate value authorized by the second subsystem, the surplus bit rate is used to transmit data via at least said base station of the radio access network of the second subsystem (see above)

Regarding claim 12, Choi teaches wherein the service change request is transmitted to the first mobile terminal and to the second terminal (**col. 2, lines 49-55**).

Regarding claim 13, Farzannejad discloses wherein the service change request is transmitted to the second terminal via at least a switch, a radio network controller and a base station to which the second terminal is connected (**col. 2, lines 14-38**).

Regarding claim 14, Choi teaches wherein the service change request includes a request for modification of radio access bearer characteristics of the

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call respectively at the mobile first terminal end and at the second terminal end; and a change from a first codec to a second codec is affected before the call is transferred, where the first codec performs coding and decoding for the first and second communications services, and the second codec performs coding and decoding for the second communications service **(col. 6, line 28-36 and Fig. 6)**.

Regarding claim 15, Farzannejad discloses a core network switch of a telecommunications system comprising first and second subsystems each including a radio access network comprising base stations and at least a radio network controller connected to at least some of said base stations, at least some of the radio network controllers also being connected to said core network switch, the first subsystem being adapted to support first and second communications services and the second subsystem being adapted to support the second communications service **(see abstract - transferring a session ongoing between two devices having a high level of information and where a video telephone session is started via a first link in the first network and perform handover to second link only using voice (see fig. 5 and 6))**.

Farzannejad discloses, said core network switch comprising, in relation to a first mobile terminal having a call in progress with a second terminal under the first communications service via a base station of the radio access network of the first subsystem **(paragraph [0049] where a first session in form of video telephone session is set up on a first link between the two mobile phones**



**via first network therefore a call in progress under the first communications service via the first subsystem).** Farzannejad discloses means for receiving an indication that the radio network controller of the first subsystem has detected a call transfer condition for transferring the call to a base station of the radio access network of the second subsystem (**See Fig. 5, step 52-54 where there is an indication of detected bad coverage of first network**). Farzannejad discloses means for requesting a service change in order for said call to continue under the second communications service if the second subsystem is not able to process the call under the first communications service and if the second subsystem is not adapted to process the call under the first communication service, changing service from the first communication service to the second communication service (**See Fig. 5, step 52-56 where an imminent handover request to the second network is made because the second network is unable to process video**) and after the change of service is complete, transferring the call to the second subsystem (**See Fig. 5, step 58 where handover is performed to the second network only using voice**).

However, Choi teaches if the second subsystem is not adapted to process the call under the first communications service (**where a request for change is made because the first network (CDMA) is not adapted to process the session under the second network (WCDMA)**).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the invention of Farzannejad with that of Choi.

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The motivation would be in order to implement handoff between heterogeneous networks so that session is continued without interruption (**col. 1, lines 19-33**).

Regarding claim 16, Choi teaches wherein the radio network controller of the first subsystem is connected to said core network switch and the radio network controller of the second subsystem is connected to a second core network switch, the switch further comprising means responding to reception of an indication that a call transfer condition has been detected by transmitting a call transfer request to the second switch (**col. 2, lines 14-19, where radio resource information to be transmitted between MAPs (Mobile Application Parts) in heterogeneous networks: the UMSC (first switch) transmits information to the MSC (second switch))** and means for deducing that the second subsystem is not able to process the call under the first communications service from the reception of a transfer failure message in response to transmission of said call transfer request (**col. 2, lines 36-38 where handoff is impossible under current situations**).

Regarding claim 17, Choi teaches wherein the first subsystem is of the third generation and the second subsystem is of the second generation (**col. 1, lines 34-42 and Fig. 1, where the first subsystem is 3G and the second subsystem is 2G**).

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Regarding claim 18, Farzannejad discloses wherein the first communications service necessitates a higher transmission bit rate than the second communications service (abstract where video requires higher transmission bit rate than voice service) .

Regarding claim 19, the combination of above discloses wherein each communications service is associated with coding over at least a segment of the call and the means for requesting a service change comprise means for requesting a coding changeover said segment of the call (see above).

Regarding claim 21, Farzannejad discloses wherein the first communications service is a video telephone service and wherein the second communications service is a voice telephone service (see fig. 5, steps 50 and 58).

Regarding claim 22, Choi teaches wherein the second communications service is a voice telephone service (**col. 1, lines 54-57 wherein the second communications service is a 2G CDMA voice telephone service**).

Regarding claim 23, Choi teaches wherein Adaptive Multi Rate (AMR) coding is associated with the second communications service (**col. 4, lines 20-22- where the WCDMA processing unit includes AMR**).

Regarding claim 25, Choi teaches wherein the means for requesting a service change comprise means for transmitting a service change request to change from the first communications service to the second communications service to the mobile first terminal and to the second terminal (**col. 2, lines 49-55**).

Regarding claim 26, Farzannejad discloses wherein the means for transmitting a service change request to the second terminal are provided by at least a switch, a radio network controller and a base station to which the second terminal is connected (paragraph [0049]).

Regarding claim 27, Choi teaches wherein the means for requesting a service change include means for requesting a modification of characteristics of at least a radio access bearer of the call; and wherein a change from a first codec to a second codec is affected before the call is transferred to the second subsystem, where the first codec supports the first and second communications services, and the second codec supports the second communications services (see Fig. 6).

Regarding claim 28, Farzannejad modified by Choi discloses wherein said transfer failure message is sent to the first core network switch and is forwarded

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to the radio network controller of the first subsystem and the step of informing the first switch of detection by the radio network controller of the first subsystem of a call transfer condition for transferring the call to a base station of the radio access network of the second subsystem is repeated for as long as a transfer failure message is forwarded to the radio network controller of the first subsystem(see above).

Regarding claim 29, Choi teaches means for forwarding said transfer failure message to the radio network controller of the first subsystem (**col. 2, lines 36-38**).

Regarding claim 30, Farzannejad discloses a method comprising controlling communications service in a telecommunications system comprising first and second subsystems, the first subsystem being adapted to support first and second communications services and the second subsystem being adapted to support the second communications service (**transferring a session ongoing between two devices having a high level of information and where a video telephone session is started via a first link in the first network and perform handover to second link only using voice (see fig. 5 and 6)**). Farzannejad discloses wherein in the case of a first mobile terminal having a call in progress with a second terminal under the first communications service via the first subsystem (**paragraph [0049] where a first session in form of video**

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**telephone session is set up on a first link between the two mobile phones via first network therefore a call in progress under the first communications service via the first subsystem).** Farzannejad discloses detecting a call transfer condition for transferring the call to the second subsystem (**See Fig. 5, step 52-54 where there is an indication of detected bad coverage of first network**). Farzannejad discloses if the second subsystem is not able to process the call under the first communications service, changing service from the first communication service to the second communication service while the call is on the first subsystem and continuing the call using only the second service (**See Fig. 5, step 52-56 where an imminent handover request to the second network is made because the second network is unable to process video**), where changing service further comprises changing codecs from a first codec supporting the first service to a second codec supporting the second service (**see fig. 5, where service is changed from video codec to voice codec**); and after the change of service is complete, transferring the call to the second subsystem **See Fig. 5, step 58 where handover is performed to the second network only using voice**).

Farzannejad is silent on if the second subsystem is not adapted to process the call under the first communications service.

However, Choi teaches if the second subsystem is not adapted to process the call under the first communications service (**where a request for change is**

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**made because the first network (CDMA) is not adapted to process the session under the second network (WCDMA)).**

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the invention of Farzannejad with that of Choi. The motivation would be in order to implement handoff between heterogeneous networks so that session is continued without interruption (**col. 1, lines 19-33**).

5. Claims 6, 7 and 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Farzannejad EP 1439725 in view of Choi et al. US 7096020 and in further view of Bruno et al. US 6262978.

Regarding claim 6, Farzannejad modified by Choi is silent on disclosing wherein the coding associated with the first communications service is compatible with the H.324 standard. However, Bruno teaches wherein the coding associated with the first communications service is compatible with the H.324 standard (col. 2, line 44-50).

At the time of invention, it would have been obvious to modify the invention of Farzannejad and Choi with teaching of Bruno. The motivation would be in order to provide video capability over a phone line (col. 1, lines 37- 41)

Regarding claim 7, Bruno discloses wherein the first communications service is a video telephone service (col. 3, line 34-43).

Regarding claim 20, Bruno discloses wherein the coding associated with the first communications service is compatible with the H.324 standard (col. 2, line 44-50).

### *Conclusion*

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

2. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Amanuel Lebassi, whose telephone number is (571) 270-5303. The Examiner can normally be reached on Monday-Thursday from 8:00am to 5:00pm.



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If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Nick Corsaro can be reached at (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

*Amanuel Lebassi*

/A. L./

10/13/2011

/NICK CORSARO/

Supervisory Patent Examiner, Art Unit 2617